The rhymes that the reader perused confused the meaning: Phonological effects during on-line sentence comprehension

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ABSTRACT
Research on written language comprehension has generally assumed that the phonological properties of a word have little effect on sentence comprehension beyond the processes of word recognition. Two experiments investigated this assumption. Participants silently read relative clauses in which two pairs of words either did or did not have a high degree of phonological overlap. Participants were slower reading and less accurate comprehending the overlap sentences compared to the non-overlapping controls, even though sentences were matched for plausibility and differed by only two words across overlap conditions. A comparison across experiments showed that the overlap effects were larger in the more difficult object relative than in subject relative sentences. The reading patterns showed that phonological representations affect not only memory for recently encountered sentences but also the developing sentence interpretation during on-line processing. Implications for theories of sentence processing and memory are discussed.

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